

IRRIGATION RESERVOIR

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service—Practice Code 436



IRRIGATION RESERVOIR

An irrigation reservoir is a water storage structure made by constructing a dam, embankment, pit, or tank.

PRACTICE INFORMATION

The purpose of irrigation reservoirs are to store water to provide reliable irrigation supply or regulate the available irrigation stream, improve water use efficiency on irrigated land, provide storage for tailwater recovery and reuse, provide irrigation runoff retention time, and reduce energy consumption. Reservoirs are used where there is insufficient water supply to meet the irrigation requirements for part or all of the irrigation season; where water is available for storage from surface runoff, streamflow, irrigation canals, or a subsurface source; and where a suitable site is available.

This practice applies to reservoirs created to store diverted surface water, ground water, or irrigation system tailwater for later use or reuse. It also applies to reservoirs used to collect and regulate available irrigation water supplies. Planning consideration is given to short-term and

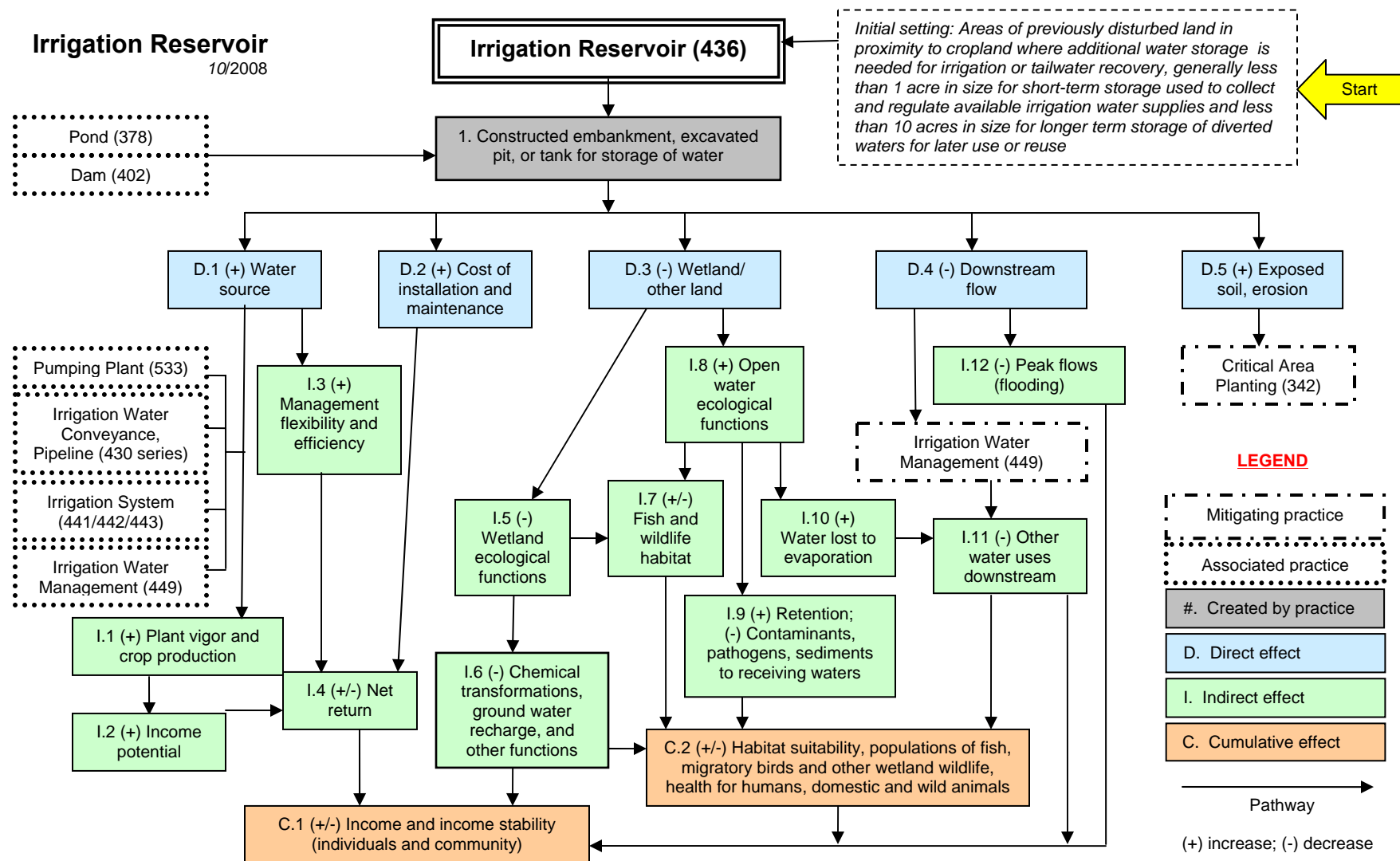
construction-related effects; effects on the water budget, downstream flows or aquifers that would affect other water uses or have undesirable environmental, social or economic effects; erosion, sediment, and associated contaminants; water temperature changes downstream that could affect aquatic and wildlife communities; wetlands or water-related wildlife habitats; and cultural resources.

COMMON ASSOCIATED PRACTICES

Irrigation reservoirs are planned and located to serve as an integral part of an irrigation system. The practice is commonly used in a Conservation Management System with the following practices: Pumping Plant (533); Irrigation Water Conveyance, Pipeline (430 series); Irrigation System (441, 442, 443); Irrigation Water Management (449); and Structure for Water Control (587).

For further information, refer to the practice standard in the local Field Office Technical Guide and associated practice specifications and job sheets.

The following page identifies the effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowners and are presumed to have been obtained. Users are cautioned that these effects are estimates that may or may not apply to a specific site.



Notes:

Effects are qualified with a plus (+) or minus (-). These symbols indicate only an increase (+) or a decrease (-) in the effect upon the resource, not whether the effect is beneficial or adverse.

The scope of the practice implementation and resulting effects are limited to those described in the "initial setting." Construction of new irrigation reservoirs in previously undisturbed areas may need to be evaluated in a site-specific EA. Impacts to ecological functions should be carefully considered, both onsite and cumulatively across the surrounding landscape.

The diagram above identifies the effects expected to occur when this practice is applied according to NRCS practice standards and specifications. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowners and are presumed to have been obtained. All income changes are partially dependent upon market fluctuations which are independent of the conservation practices. Users are cautioned that these effects are estimates that may or may not apply to a specific site.